Manitoba
Building for the Future

FARM BUSINESS MANAGEMENT

Guidelines For Estimating

Weaner Pig (Nursery) Costs 5 - 23 kg

Based on marketing 32,592 pigs

Manitoba Agriculture and Food - Information Update **www.gov.mb.ca/agriculture/**

Date: February, 2003

This publication is intended to provide a format and a set of guidelines for determining the cost of production for a weaner pig 5-23 kg enterprise. This type of operation is intended to represent the second stage, or nursery, of a three stage pork system. The three production stages are as follows: first stage - farrow to 5 kg, second stage - weaner pig (nursery) 5 to 23 kg, third stage - grower/finisher 23 kg to market weight. Adjustments will be necessary when applying these figures to your enterprise.

The assumptions on which the costs are based are outlined in the supporting pages. These assumptions were arrived at using the breeding stock, management practices, and facilities seen in modern, well managed swine operations of comparable size in Manitoba. Productivity and performance assumptions are based on information collected by department specialists, feed companies and other organizations. Where individual herd productivity and performance levels differ from those listed adjustments will be required.

Accurate, up to date, production and financial records are essential for the effective application of these guidelines to an individual operation. Without such information accurate cost of production projections cannot be determined.

The guideline can be useful for comparison purposes. Comparison of costs at different levels of production can be made with other farms, the farm over a period of time or comparing the plan with the actual results at the end of the planning period.

Disclaimer: This budget is only a guide and is not intended as an in depth study of the cost of production of this industry. Interpretation and utilization of this information is the responsibility of the user. If you require assistance with developing your individual budget, please contact your local Manitoba Agriculture and Food office.

G-15396

Weaner Pig (Nursery) Costs 5-23 kg Cost of Production

The following farrow wean cost of production budget is **based on the assumption that all feed is purchased.**

The budget also includes a land investment cost based on the assumption that 160 acres would be required for this size of operation, with 140 acres being rented out at $25 per acre.

If developing a cost of production budget to include home mixed rations the following items should be added to the budget:

- additional equipment costs associated with a mix mill;
- additional bins for different ingredients;
- additional labour for feed preparation.

The rations illustrated in this budget are examples only. Individual farm conditions should be taken into account when formulating the diets. Producers need to know what the feed intakes of their animals are. Please consult with a nutritionist for diet formulations suggestions.

The Manitoba pork production industry profile is changing and this budget was specifically designed to address the need of producers who may want to analyze the cost of starting up or switching to a swine nursery 5-23 kg operation. Several companies are offering contracts with varying levels of guarantees. Producers need to accurately calculate their costs before they can properly make a decision.

103-03539/

Weaner Pig (Nursery) 5-23 kg Summary
February, 2003

A. Operating Costs	$/Pig Sold	Total Cost	Your Cost
1. Feed Costs:			
1.01 Pre Starter 1	$0.47	$15,318	
1.02 Pre Starter 2	$1.70	$55,406	
1.03 Starter 1	$3.53	$115,050	
1.04 Starter 2	$8.23	$268,232	
Total Feed Cost	**$13.93**	**$454,006**	
2. Other Operating Costs:			
2.01 Weanling cost	$35.75	$1,165,164	
2.02 Veterinary Medicine & Supplies	$0.43	$14,100	
2.03 Maintenance & Repairs	$0.14	$4,563	
2.04 Hydro & Propane	$2.15	$70,000	
2.05 Insurance	$0.25	$8,148	
2.06 Manure Costs	$0.48	$15,707	
2.07 Office Supplies	$0.04	$1,440	
2.08 Levy, Marketing & Transportation	$1.00	$32,592	
2.09 Property Taxes	$0.20	$6,615	
Subtotal Operating Costs	$54.38	$1,772,335	
2.10 Interest on Operating Cost	$0.39	$12,711	
Total Operating Costs	**$54.77**	**$1,785,046**	
B. Fixed Costs			
3. Depreciation:			
3.01 Buildings and Manure Storage	$0.68	$22,163	
3.02 Equipment	$1.08	$35,199	
Total Depreciation Cost	$1.76	$57,362	
4. Investment:			
4.01 Land Cost	$0.05	$1,600	
4.02 Buildings and Manure Storage	$0.32	$10,429	
4.03 Equipment	$0.26	$8,474	
Total Investment Cost	$0.63	$20,503	
Total Fixed Costs	**$2.39**	**$77,865**	
C. Labour			
Wages, benefits and hired manager	$1.53	$49,866	
Total Cost of Production	**$58.69**	**$1,912,777**	

Break-Even Price	$/Pig	
Operating Cost	$54.77	
Operating & Labour Cost	$56.30	
Operating Labour & Fixed Cost	$58.69	

Disclaimer: This budget is only a guide and is not intended as an in depth study of the cost of production of this industry. Interpretation and utilization of this information is the responsibility of the user.

Weaner Pig (Nursery) Production Costs 5-23 kg

1. This input table outlines the cost of production for the weaner barn only.
2. Buildings and equipment are valued at new cost.
3. Manure haulage is contracted out.

Herd Profile

Weaner Pig Places	**4,800**		
Number of turns	**7**		
Weaner Pigs Purchased	**33,600**		
Percent Post-Weaning Mortality	**3.0**		
Pigs Died, Post-Weaning	**1,008**		
Weaner Pigs Sold	**32,592**		
Previous 5 weeks Average Market Price	**$65.00** /cwt	$143.30	/ckg
Weanling Formula Factor (% of Mkt Price)	**55.00** %		
Calculated Weanling Puchase Price	$35.75 /pig		

Feed Requirements

			Ration Cost	
			Purchased	Home-Mixed
Pre Starter 1(sew)	**0.4**	kg/pig	**$1,186.00**	$0.00 /tonne
Pre Starter 2	**1.8**	kg/pig	**$946.00**	$0.00 /tonne
Starter 1	**7.0**	kg/pig	**$504.00**	$0.00 /tonne
Starter 2	**22.0**	kg/pig	**$374.00**	$0.00 /tonne
Total Feed	**31.2**	kg/pig		

Weaner Pig Efficiency

Days Weaner on feed (nursery)	**42**	days
Total Cycle Days (per turn)	**52**	days
Target Starting Weight	**5.0**	kg
Target Ending Weight	**23.0**	kg
Feed Conversion Ratio (feed:gain)	**1.73**	kg
Average Daily Gain	**0.43**	kg

Labour

Total Hours per 7-day week	**80.0**	hours/week
Wage (includes benefits & hired manager)	**$12.00**	/hour

Capital Investment

		$/Sq. Ft.	$/Pig Place	Total
Buildings				
Barn	9,600 sq ft	**$43.75**	$87.50	$420,000
Office & loading				**$5,000**
Feed Mill (building only)				**$0**
Total Building Cost				**$425,000**
Equipment				
Nursery barn				**$285,000**
Generator				**$12,000**
Electrical & other				**$90,000**
Fire Alarm System				**$1,000**
Feed Bins				**$4,000**
Ingredient Bins				**$0**
Total Equipment Cost				**$392,000**
Total Buildings and Equipment Cost				**$817,000**
Land Value				
Land Investment	20 acres @	$500		**$10,000**
Other Costs				
Site preparation				**$30,000**
Manure Storage				**$28,000**
Total Other Costs				**$58,000**
Total Capital Investment				**$885,000**

Feed Ingredient Costs

Ingredients	Price/tonne	Your Cost
Barley	$190	
Corn	$162	
Field Peas	$225	
Soybean Meal - 47 %	$300	
Canola Meal - 36%	$225	
Creep Premix	$850	
Sow Micro Premix	$3,000	
Grower Micro Premix	$2,500	
Canola Oil	$500	
Whey Powder	$800	
Herring Meal	$1,400	
Plasma	$7,500	
Limestone	$80	
Dical (16% Ca-21% P)	$470	
Salt - 96%	$98	
L-Lysine HCL	$2,700	
L-Threonine	$6,400	
D,L-Methionine	$4,500	
Oats - Steam rolled	$400	
Processing Cost		
(Hydro & Repairs/Maintenance & Insurance)	$3.25	
Percent Weight loss due to processing	1.25 %	
Labour	$4.00	

Feed Requirement and Cost Summary

	Amount (kg)	Price $ /tonne	Ration Cost $ /tonne	Your Cost
Pre starter 1				
Corn	108.4	$162.00	$17.56	
Soybean Meal - 47 %	120.2	$300.00	$36.06	
Creep Premix	29.5	$850.00	$25.08	
Canola Oil	27.2	$500.00	$13.60	
Whey Powder	120.2	$800.00	$96.16	
Herring Meal	61.3	$1,400.00	$85.82	
Plasma	59.0	$7,500.00	$442.50	
Oats - Steam rolled	474.2	$400.00	$189.68	
Total Pre Starter 1	**1,000.0 kg**		**$906.46**	
Adjusted for weight loss (percentage)		1.25 %	$917.79	
Plus processing cost per tonne		$3.25	$921.04	
Plus Labour Cost		$4.00	**$925.04**	
Pre starter 2				
Corn	133.9	$162.00	$21.69	
Soybean Meal - 47 %	129.3	$300.00	$38.79	
Creep Premix	34.0	$850.00	$28.90	
Canola Oil	18.2	$500.00	$9.10	
Whey Powder	124.8	$800.00	$99.84	
Herring Meal	74.7	$1,400.00	$104.58	
L-Lysine HCL	0.5	$2,700.00	$1.35	
Oats - Steam rolled	484.6	$400.00	$193.84	
Total Pre Starter 2	**1,000.0 kg**		**$498.09**	
Adjusted for weight loss (percentage)		1.25 %	$504.32	
Plus processing cost per tonne		$3.25	$507.57	
Plus Labour Cost		$4.00	**$511.57**	
Starter 1				
Corn	607.5	$162.00	$98.42	
Soybean Meal - 47 %	204.2	$300.00	$61.26	
Creep Premix	39.9	$850.00	$33.92	
Canola Oil	11.3	$500.00	$5.65	
Whey Powder	90.7	$800.00	$72.56	
Herring Meal	45.4	$1,400.00	$63.56	
L-Lysine HCL	1.0	$2,700.00	$2.70	
Total Starter 1	**1,000.0 kg**		**$338.07**	
Adjusted for weight loss (percentage)		1.25 %	$342.30	
Plus processing cost per tonne		$3.25	$345.55	
Plus Labour Cost		$4.00	**$349.55**	

Starter 2

Barley	186.0		$190.00	$35.34
Corn	545.8		$162.00	$88.42
Soybean Meal - 47 %	226.9		$300.00	$68.07
Creep Premix	39.9		$850.00	$33.92
L-Lysine HCL	1.4		$2,700.00	$3.78
Total Starter 2	**1,000.0**	**kg**		**$229.53**
Adjusted for weight loss (percentage)			1.25 %	$232.40
Plus processing cost per tonne			$3.25	$235.65
Plus Labour Cost			$4.00	**$239.65**

Weaner Pig (Nursery) 5-23kg Production Costs Worksheet

A. Operating Costs

1. Feed Requirements and Costs

			Your Cost
1.01 Pre starter 1			
	0.40	kg ration/pig	
x	$1,186.00	/tonne	
÷	1,000	kg/tonne	
=	**$0.47**	**/pig sold**	
1.02 Pre starter 2			
	1.8	kg ration/pig	
x	$946.00	/tonne	
÷	1,000	kg/tonne	
=	**$1.70**	**/pig sold**	
1.03 Starter 1			
	7.0	kg ration/pig	
x	$504.00	/tonne	
÷	1,000	kg/tonne	
=	**$3.53**	**/pig sold**	
1.04 Starter 2			
	22.0	kg ration/pig	
x	$374.00	/tonne	
÷	1,000	kg/tonne	
=	**$8.23**	**/pig sold**	

2. Other Operating Costs

2.01 Weanling Purchase			
	$65.00	$/cwt average market price	
x	55.00	% of mkt price weanling formula factor	
	$35.75	**purchase cost**	
2.02 Veterinary Medicine & Supplies			
	$3,600	professional services	
+	$10,500	medication	
÷	32,592	pigs sold	
=	**$0.43**	**/pig sold**	

2.03 Maintenance & Repairs

	$817,000	buil. ng & equipment cost	_____
x	0.55	% year repair & maintenance	_____
÷	32,592	pigs sold	_____
=	**$0.14**	**/pig sold**	_____

2.04 Hydro & Propane

	$30,000	hydro	_____
+	$40,000	propane	_____
÷	32,592	pigs sold	_____
=	**$2.15**	**/pig sold**	_____

2.05 Insurance

	$817,000	investment	_____
x	$0.65	rate/$100	_____
÷	100	/$100 capital	_____
÷	32,592	pigs sold	_____
=	$0.16	/pig sold	_____
	$264,000	market hogs value	_____
x	$0.65	/$100 capital invested	_____
÷	32,592	pigs sold	_____
=	$0.05	/pig sold	_____
	$45.00	business interruption coverage/feeder	_____
x	4,800	feeders	_____
x	$0.65	/$100 capital invested	_____
÷	32,592	pigs sold	_____
=	$0.04	/pig sold	_____
Total =	**$0.25**	**/pig sold**	_____

2.06 Manure Costs

Haulage	2.2	litres/pig/day	_____
x	365	days	_____
x	$0.003	/litre	_____
x	4,800	pig places	_____
÷	32,592	pigs sold	_____
=	$0.35	/pig sold	_____

Odour control

	$4,300	total cost	
÷	32,592	pigs sold	
=	$0.13	/pig sold	
Total =	**$0.48**	**/pig sold**	

2.07 Office Supplies

	$0.30	/pig place	
	$4,800	pig places	
÷	32,592	pigs sold	
=	$0.04	**/pig sold**	

2.08 Levy, Marketing & Transportation

	$1.00	**/pig sold**	

2.09 Property Taxes

	$6,615	total taxes	
÷	32,592	pigs sold	
=	**$0.20**	**/pig sold**	

2.10 Interest on Operating Cost:

	$35.75	weaner cost	
+	$18.63	subtotal operating	
÷	2	average	
x	52	days per turn	
÷	365	days per year	
x	6.00	% operating interest	
=	**$0.39**	**/pig sold**	

B. Fixed Costs

3. Depreciation: $\frac{\text{Original cost - Salvage Value}}{\text{Useful Life}}$

3.01 Buildings

	$483,000	building cost (including manure storage)	_____
-	$42,500	salvage value (building only)	_____
÷	20	years useful life	_____
÷	32,592	pigs sold	_____
=	**$0.68**	**/pig sold**	_____

3.02 Equipment

	$392,000	equipment cost	_____
-	$39,200	salvage value	_____
÷	10	years useful life	_____
÷	32,592	pigs sold	_____
=	**$1.08**	**/pig sold**	_____

4. Investment: $\frac{\text{Original Cost + Salvage Value}}{2}$ **x Investment Rate**

4.01 Land

	$10,000	land value	_____
+	$30,000	site preparation	_____
x	4.0	% investment rate	_____
÷	32,592	pigs sold	_____
=	**$0.05**	**/pig sold**	_____

4.02 Buildings

	$483,000	building cost (including manure storage)	
+	$42,500	salvage value (building only)	
÷	2	average	
x	4.0	% investment rate	
÷	32,592	pigs sold	
=	**$0.32**	**/pig sold**	

4.03 Equipment

	$392,000	equipment cost	
+	$39,200	salvage value	
÷	2	average	
x	4.0	% investment rate	
÷	32,592	pigs sold	
=	**$0.26**	**/pig sold**	

C. Labour

	80.0	hours/week	
x	52	weeks/year	
x	$12.00	/hour	
÷	32,592	pigs sold	
=	**$1.53**	**/pig sold**	

Summary of Home Mixed Feed Ingredients Used

Total pigs sold 32,592

	Total per Year (tonnes)	Total per Month (tonnes)	Total per Pig (kgs)	Total per Pig (lbs)
Barley	0.0	0.00	0.0	0.0
Corn	0.0	0.00	0.0	0.0
Field Peas	0.0	0.00	0.0	0.0
Soybean Meal - 47 %	0.0	0.00	0.0	0.0
Creep Premix	0.0	0.00	0.0	0.0
Canola Oil	0.0	0.00	0.0	0.0
Whey Powder	0.0	0.00	0.0	0.0
Herring Meal	0.0	0.00	0.0	0.0
Plasma	0.0	0.00	0.0	0.0
L-Lysine HCL	0.0	0.00	0.0	0.0
Oats - Steam rolled	0.0	0.00	0.0	0.0
Total	**0.0**	**0.00**	**0.0**	**0.0**

Summary of Purchased Feed Ingredients Used

	Total per Pig Mkt (kgs)	Total per Year (tonnes)	Total per Month (tonnes)	Total per Pig Mkt (lbs)
Pre starter 1	0.4	13.4	1.1	0.9
Pre starter 2	1.9	60.5	5.0	4.1
Starter 1	7.2	235.2	19.6	15.9
Starter 2	22.7	739.2	61.6	50.0
Total	**32.2**	**1,048.3**	**87.4**	**70.9**
Total	**32.2**	**1,048.3**	**87.4**	**70.9**

For further information contact your local Manitoba Agriculture and Food office.

Prepared by:
Peter Blawat
Farm Management Specialist

Ian Seddon
Swine Specialist

Normand Mabon
Farm Management Specialist

John Maltman
Swine Specialist